



Red Hat AMQ Clients 2.11

AMQ Clients 2.11 Release Notes

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Abstract

These release notes contain the latest information about new features, enhancements, fixes, and issues contained in the AMQ Clients 2.11 release.

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MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).

CHAPTER 1. NEW AND CHANGED FEATURES



NOTE

This release introduces a new minimum required version for Node.js. The AMQ JavaScript client requires Node.js version 14 or higher. For more information, see [Red Hat AMQ Supported Configurations](#).

- **ENTMQCL-3126 - Support for operating in FIPS mode**

All of the clients have been tested on Red Hat Enterprise Linux 8 (RHEL 8) with FIPS mode enabled. All of the Java-based clients have been tested on OpenJDK 11 with FIPS mode enabled.

For information about enabling FIPS mode in RHEL 8, see [RHEL 8 Security Hardening](#).

For information about enabling FIPS mode in OpenJDK 11, see [Configuring OpenJDK 11 on RHEL with FIPS](#).

1.1. AMQ C++

- **ENTMQCL-2957 - Improved C++ APIs for delivery tracking**

The AMQ C++ client now provides accessors for AMQP delivery tags on delivery and tracker objects.

1.2. AMQ JMS

- **ENTMQCL-3125 - Support for Java 17**

AMQ JMS now supports Java 17.

- **ENTMQCL-3129 - Quarkus JMS**

The Quarkus extension for Qpid JMS (AMQ JMS) is now supported as part of AMQ Clients.

The extension is available at code.quarkus.redhat.com. Search for "Qpid JMS" in the filter bar. See the [Quarkus documentation](#) for more information.

CHAPTER 2. FIXED ISSUES

2.1. AMQ C++

- [ENTMQCL-2975](#) - Crash upon reconnect when user passed empty vector to `connection_options::failover_urls`
In earlier releases of the product, client programs attempting to reconnect crashed when the supplied list of failover URLs was empty.

In this release, reconnect works as expected.

2.2. AMQ PYTHON

- [ENTMQCL-2242](#) - `KeyError` if tracing enabled and message has annotations but no trace context
In earlier releases of the product, the client threw an unexpected exception when tracing was enabled and it encountered a message with annotations but no annotation for the trace context.

In this release, tracing works as expected for messages without a trace context.

CHAPTER 3. IMPORTANT NOTES

3.1. LONG TERM SUPPORT

AMQ Clients 2.11 is available as a long term support (LTS) release version. Bug fixes and security advisories are provided for AMQ Clients 2.11 in a series of micro releases (2.11.1, 2.11.2, 2.11.3, and so on) for a period of at least 12 months.

Note the following important points about the LTS release stream:

- The LTS release stream provides only bug fixes. No new enhancements will be added to this stream.
- To remain in a supported configuration, you must upgrade to the latest micro release in the LTS release stream.
- The LTS version will be supported for at least 12 months from the time of the AMQ Clients 2.11.0 GA.

3.2. AMQ C++

- **Unsettled interfaces**

The AMQ C++ messaging API includes classes and methods that are not yet proven and can change in future releases. Be aware that use of these interfaces might require changes to your application code in the future.

These interfaces are marked **Unsettled API** in the API reference. They include the interfaces in the **proton::codec** and **proton::io** namespaces and the following interfaces in the **proton** namespace.

- **listen_handler**
- The **on_sender_drain_start** and **on_sender_drain_finish** methods on **messaging_handler**
- The **draining** and **return_credit** methods on **sender**
- The **draining** and **drain** methods on **receiver**

API elements present in header files but not yet documented are considered unsettled and are subject to change.

- **Deprecated interfaces**

Interfaces marked **Deprecated** in the API reference are scheduled for removal in a future release.

This release deprecates the following interfaces in the **proton** namespace.

- **void_function0** - Use the **work** class or C++11 lambdas instead.
- **default_container** - Use the **container** class instead.
- **url** and **url_error** - Use a third-party URL library instead.

3.3. PREFERRED CLIENTS

In general, AMQ clients that support the AMQP 1.0 standard are preferred for new application development. However, the following exceptions apply:

- If your implementation requires distributed transactions, use the AMQ Core Protocol JMS client.
- If you require MQTT or STOMP in your domain (for IoT applications, for instance), use community-supported MQTT or STOMP clients.

3.4. LEGACY CLIENTS

- **Deprecation of the AMQ OpenWire JMS client**
The AMQ OpenWire JMS client is now deprecated in AMQ 7. It is recommended that users of this client migrate to AMQ JMS or AMQ Core Protocol JMS.
- **Deprecation of the CMS and NMS APIs**
The ActiveMQ CMS and NMS messaging APIs are deprecated in AMQ 7. It is recommended that users of the CMS API migrate to AMQ C++, and users of the NMS API migrate to AMQ .NET. The CMS and NMS APIs might have reduced functionality in AMQ 7.
- **Deprecation of the legacy AMQ C++ client**
The legacy AMQ C++ client (the C++ client previously provided in MRG Messaging) is deprecated in AMQ 7. It is recommended that users of this API migrate to AMQ C++.
- **The Core API is unsupported**
The Artemis Core API client is not supported. This client is distinct from the AMQ Core Protocol JMS client, which is supported.

3.5. UPSTREAM VERSIONS

- AMQ C++, AMQ Python, and AMQ Ruby are now based on [Qpid Proton 0.37.0](#).
- AMQ JavaScript is now based on [Rhea 1.0.24](#).
- AMQ .NET is now based on [AMQP.Net Lite 2.4.0](#).
- AMQ JMS is now based on [Qpid JMS 1.5.0](#).
- AMQ Core Protocol JMS is now based on [ActiveMQ Artemis 2.18.0](#).
- AMQ JMS Pool is now based on [Pooled JMS 2.0.4](#).
- AMQ Resource Adapter is now based on [AMQP 1.0 Resource Adapter 2.0.0](#).
- AMQ Spring Boot Starter is now based on [AMQP 1.0 JMS Spring Boot 2.5.6](#).
- AMQ Netty OpenSSL is now based on [netty-tcnative 2.0.46.Final](#).

CHAPTER 4. IMPORTANT LINKS

- [Red Hat AMQ Supported Configurations](#)
- [Red Hat AMQ Component Details](#)
- [AMQ Clients 2.10 Release Notes](#)
- [AMQ Clients 2.9 Release Notes](#)
- [AMQ Clients 2.8 Release Notes](#)
- [AMQ Clients 2.7 Release Notes](#)
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- [AMQ Clients 2.0 Release Notes](#)
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